Estudios de lingüística inglesa aplicada

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VOCAL-MEDICAL: ON-LINE LANGUAGE LEARNING AND CULTURAL PREPARATION FOR EMERGENCY SERVICES

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The VOCAL-Medical Project (Vocationally Oriented Culture and Language – Medical) is a two year Leonardo da Vinci Transfer of Innovation project, funded by the EU Commission, and part of the Lifelong Learning Programme. It follows on from two earlier EU projects, namely VOCAL (www.vocalproject.eu) and the award winning Problem-SOLVE. The VOCAL-Medical project partnership brings together 14 partner countries and 9 languages. The end product will be an on-line training tool for emergency staff who deal with patients who do not understand the local language. There will be also an app for mobile phones (smart phones) and tablets (with HTML5 functionalities) which can be used by the consultant in an emergency medical situation.

This project is directed at professionals in the medical sector who need to communicate with patients who are non-nationals in emergency situations where good communication skills can literally mean the difference between life and death. It responds to a growing need in the medical sector to overcome the language and intercultural barriers which are occurring with ever greater frequency as a result of demographic changes and increased mobility.

The project aims to bridge the gap between different healthcare systems and different cultural behaviours inherent in the doctor-patient relationship. This has benefits for healthcare systems, for the professionals who work in them and for patients.

Key words: *Multilingual, multicultural, intercultural and language barriers, qualitative communication in the medical sector.*

El Proyecto VOCAL-Medical (Vocationally Oriented Culture and Language – Medical / Cultura e Idioma Medico Orientado a la Formación Profesional/Vocacional) es un proyecto de dos años del Leonardo da Vinci Transfer of Innovation (Transferencia de la Innovación), financiado por la Comisión Europea, dentro del Programa de Aprendizaje Permanente. (Lifelong Learning Programme). Es una continuación de dos anteriores proyectos de la UE: VOCAL (www.vocalproject.eu) y el ganador de premios Problem-SOLVE.

Palabras clave: *Multilingüe, multicultural, intercultural y barreras lingüísticas, comunicación cualitativa en el sector sanitario.*

1. Introduction

The VOCAL-Medical project (Vocationally Oriented Culture and Language – Medical) is a two year *Leonardo da Vinci* Transfer of Innovation project and part of the EU Commission's Lifelong Learning Programme. It is a follow-on project to Vocal (www.vocalproject.eu), an earlier EU project that ran from 2007 until 2009 and that was based on the Problem SOLVE EU funded project that was awarded the EU Language Label 2006.

The VOCAL project partnership consists of 10 European countries, a combination of 14 partners and 9 languages. The lead project partner, the Institute of Technology, Tralee (ITT) co-ordinates this pan-European collaboration. Quality issues are dealt with by a partner in the UK and technical matters are the remit of Danmar Computers in Poland. The lead medical expert is the Belgium partner Thomas More Kempen, who is supported by other medical colleagues in the ITT, RCSI (Royal

College of Surgeons in Ireland) in Dublin and the Emergency Services in Slovakia. Other project partners are from Bulgaria, Germany (two partners), Lithuania, Poland (two partners), Slovakia (a university partner), Slovenia and Turkey. Apart from being medical experts, partners are also mobility coordinators, language lecturers and experts in multimedia or ICC (Intercultural Communication). The dual focus of this on-line project is on the one hand a medical context led by the Belgium partner and an intercultural competence led by one of the German partners, Assist GmbH.

The end product is a multi-lingual, multi-cultural on-line application for staff in emergency care that will support their communication skills and can also be used in real time emergency situations. The target group is emergency staff in the medical sector.

2. Rationale – Research Summary

Emergency care departments and ambulance services are fast-paced work environments characterized by a broad variety of pathology and patients. Moreover, emergency care often requires instantaneous decisions about life and death (Adriaenssens et al, 2011; Kilcoyne & Dowling, 2007). In most cases, emergency consultations are unplanned resulting in increased stress, anxiety and even aggression in patients and relatives. As a consequence, good communication is primordial in this setting to gather essential medical information, provide clear information to the patients and their relatives and to reduce levels of distress.

A study by Philips et al (2010) revealed that non-native speakers and immigrants often seek their first medical help in emergency care (Philips et al, 2010). As a consequence language problems are very common in these health care services. General practitioners (on duty) are however also confronted frequently with foreign patients as they are in many health care systems the first contact point in case of (semi)urgent medical problems (Shi, 2012).

In addition to language barriers, also intercultural differences play an important role in the adequate delivery of (semi) urgent care (Wachtler et al, 2005). Religious aspects, gender attitudes and health beliefs were found to alter communication between health care providers and patient in ER (Taylor et al, 2013).

Several studies in the last decades emphasize the need to bridge the language gap and intercultural barriers in emergency care (Meischke et al, 2013; Flores, 2006; Carrasquillio et al, 1999). Research shows significant effects on 'time to dispatch' (for example, delay in start-up of resuscitation), accuracy of the level of medical care delivery, misinterpretation of symptoms and diagnostic mistakes, and overall satisfaction of non-native speaking patients in ER (Brach et al, 2005; Quan, 2010).

Effective communication between patients and health care professionals who are culturally and linguistically different implies utilisation of strategies to provide competent health care (Lee, 2003). A broad variety of these strategies is described by Brach and Fraser (2000), e.g. creation of intercultural awareness, training in intercultural and language competencies, provision of interpreter services, specific recruitment and retention policy for minority staff, and the involvement of family and community members in health care decision making. Besides these strategies, the development of (ICT) tools to support and facilitate provider-patient/family communication can also be helpful in bridging the language and cultural gap in urgent medical care.

3. Aims and Objectives

The aim of the VOCAL-Medical project is the transfer of innovation from the Leonardo da Vinci TOI project VOCAL (2007-2009) and other relevant EU projects of the LLP 2007-2013 in relation to language learning in vocational contexts to a new vocational namely the theme of this project which relates to the healthcare sector. It targets professionals in the clinical settings broadly speaking who need to communicate with patients who are non-nationals in emergency situations where good communication skills are often the key to quality and effective healthcare. As such this project aims to respond to an increasing need to overcome language and intercultural barriers across healthcare sectors globally as a result of demographic changes and increased mobility.

Increasingly, clinical providers and healthcare staff engage on a professional basis with colleagues and patients from different cultures and many of whom across Europe and elsewhere use English as a lingua franca. L2 (or non-native speakers) providers face communicative and cultural

challenges when dealing with patients from the local culture and from other cultures. The use of the lingua franca English does not mean that the cultural values and beliefs brought by the participants to the interaction are no longer relevant nor do they become neutralized. Native speakers of English (L1 speakers) also face challenges when dealing with colleagues and patients who are from different cultural backgrounds. Furthermore, different cultural beliefs and values are brought by speakers of many varieties of English to the interaction, e.g., US-English, Indian English, and can impact on perceptions of roles, power, authority, which are then coded in verbal, nonverbal and paraverbal communication. This project therefore draws additionally on intercultural communication theory and applies it to the clinical context as a means of improving the effectiveness of all healthcare professionals working in multicultural challenging environments.

This project aims to provide language and culture training materials contextualised for the medical sector, through cooperation between educational institutions and professionals working in this sector. Its target audience is specifically: in hospital emergency services; ambulance service and fast rescue teams; GP's on standby/call duty (especially in urban areas); doctors/specialists within the hospital examining and diagnosing emergency patients.

Its objective in order to fulfil these aims is to create and test the content of a web-based/mobile application designed for the above purposes.

4. Project Methodology

One of the strengths of this project is the fact that it is focused on stakeholders and specifically integrates their input. The content of the project (online modules) has been written according to the feedback received by all partners' needs analysis. As a result, the materials generated by the partners are based on real and identifiable needs incorporating the demands of the target sector.

The structure and concept of the previous project VOCAL was transferred by the current project partners to the medical sector. There were four phases in the design process:

a) Eliciting and collating relevant linguistic and cultural input from staff working in the medical sector

At the very start of the project surveys were written by the Belgium partner as the medical expert in this project. This partner also monitored and analysed the surveys. The implemented surveys were "Needs Analysis questionnaires" aimed at the target group, for example, staff working in the healthcare and medical sectors in general but also to include paramedics, emergency medical technicians and ambulance drivers, in order to elicit information useful for medical staff in order to improve communication with their patients. In addition the "local" knowledge of partners in each country was utilised by their research into local cultural and linguistic topics that were relevant to the medical sector.

b) Designing of prototype materials in the foreign language

The overall aim of the project was to design a tool to support communications in emergency situations. The training material was designed based on the results of the medical surveys of the Belgium partner and with the input by one of the German partners who is an expert in ICC (Intercultural Communication). These partners created a prototype of the material in English, which was in its final version transferred by all other project partners into their own target languages. The prototype includes key words and phrases in order to assist the user with the linguistic knowledge. General and cultural information, virtual tours followed by exercises (True/False; Drag & Drop and multiple choice) and a final test for individual feedback are creating the content of the online training material.

c) Prototype materials for feedback

Submission of these materials was an important feature for the Quality Manager. The Project Co-ordinator and all partners were requested to give constant feedback about the content of the modules; led by the Belgium medical expert and the German ICC expert. Constant consultation with the technical team ensured that partners were not creating modules in *Microsoft Word* that were not able to transfer into an online format at a later stage.

d) Final consultation and testing phase of the prototype template with the target group

As already mentioned before, one of the distinct features of this project was the emphasis of the target group. This was combined with a dual focus on quality; the more testing was done, the better the end result of the product. With this in mind the last phase of the project concentrated on testing the online modules. Each partner was asked to distribute feedback surveys (online and hard copies) to the target group in their country. The test results of these target groups were then forwarded to the technical team who implemented the changes in the online modules. Liaison with the technical team was on-going and a bug-tracking system was used to maintain an up-to-date record of active/fixed technical issues and bugs. This phase was both ensuring quality assurance and the dissemination of the project to the various target groups and potential end-users in each country.

5. Structure of the Online Topics for the Training Materials

The on-line VOCAL-Medical materials are not just bilingual (i.e. designed in the target language of each partner country and also available in English) but also multilingual (any target language can be combined with another depending on the needs of the user).

There are five training on-line modules available:

1) Introductions and patient histories,

2) Allergies and use of medication,

3) Events relating to the current complaint,

4) Family and social situation and ambulance situations,

5) Intercultural awareness.

Each of the selected topics of the "training materials" is presented according to the same structure: The introduction page provides *General Background* about the selected topic. The next feature is *Key words* and *key phrases* in the target language accompanied by *audio* in the language of the host country and a written translation. Next is the core feature of the online modules which are three animated *virtual tours* of typical scenarios with text files of *dialogues*. This text can be made invisible so that the user

can concentrate on their listening skills. A mix of *exercises* (e.g. multiple choice, drag/drop; true/false) is followed by each virtual tour. Instant feedback (individual scores) to keep the user motivated has been added. The user will also be informed which of their answers in the quizzes are correct or not. Recommendations on medical issues are given in the *advice* section which focuses very much on cross-cultural issues and on practical advice from the conducted surveys by the Belgium partner at the start of the project. The second last section is called *Health system*: country-specific information about health care issues in each country are summarised here with relevant web links. A *final test* will provide further opportunity to the user for self-assessment.

Apart from the five on-line training modules there is the **Vocal-Medical mobile application**. This is a web-based multilingual resource for smartphone, tablet or PC and gives the emergency medical staff member the opportunity to communicate and record the medical history of non-native speaking patients presenting at the emergency services. The application is available at http://m.vocal-medical.eu. It consists of four modules covering different medical topics. The data collected can be printed or electronically stored in the medical record. The following topics are featured: Introductions, past medical history, allergies, medication, last oral intake, events leading to the current complaint, family and social history and in the ambulance. Previous patient's surveys can also be printed and stored as the user has to log in at the start. This feature of the project is also multilingual. The medical staff member can select a different language in comparison to the patients.

6. Didactic Approach

VOCAL incorporates authentic contemporary situations in a medical environment and is task-based in its learning approach The project creates an autonomous learning environment, combines user friendly technology and navigational components with open access. Native speakers are involved in the preparation of all of the content, virtual tours, questions and quizzes. The availability of high frequency vocabulary as a learning method, audio files and an in-built feedback system are used throughout the sections. Different learning styles are addressed by providing bilingual text files for reading, visual material accompany the animated virtual tours and

audio files are provided for listening. The interactive nature of the material ensures that students are self-motivated and it offers the opportunity for autonomous learning. An important consideration for this design is the knowledge that clinicians and healthcare staff have limits on their time for training and work in a variety of professional environments. The usability and appropriateness of these tools for training purposes among this particular professional group has partly driven the open nature of these tools. The intercultural training component is flexible and can be used and reused in a flexible manner by users and both the App and the website are standalone self-access tools which this project sees as an important consideration for this professional group.

7. Conclusion

Transnational mobility is growing both between EU member states and other parts of the world and additionally in consideration of the current refugee crisis affecting the EU, the associated challenges on EU health services as highlighted in this discussion are likely to come under more focus in the coming months and years. Health services are therefore increasingly confronted with people with an inadequate command of the national language. There is now quite a body of research on the impact of language barriers in the health services which draws attention to problems including misdiagnosis, medication mismanagement, delay and ineffective service delivery as well as ethical considerations, which result from poor communication.

Given the legal basis for the rights of citizens of member states to receive health care, as well as national legislation (such as the Race Relations Act in the UK), there is increasing concern about fair, effective and efficient access to medical services as well as about the potential and actual costs of interpreting and translating services. The impact of language barriers is felt especially by those who are in the first line of contact with patients, particularly emergency services and general practitioners (on duty). Inadequate communication and language problems increase the risk for diagnostic or therapeutic failures.

Research has revealed that quality of care is directly related to health professional language ability and cultural competence: language

barriers have a negative effect on the relationship with the patient. A language gap is associated with poor health education, low standards of interpersonal care and lower patient satisfaction. It also leads to extended waiting times and can trigger aggression and frustration.

The rationale for this project is further developed in need analyses by different partners, provided as an appendix. See for example the 'State of the Art' reports for 16 EU countries published at http://www.mighealth.net. VOCAL-Medical is a website and mobile app product that combines linguistic and cultural information for vocational educational purposes in medical care. The presence of a web site ensures that the content created is available long after physical products such as brochures or flyers have been distributed. It shows that a transition from language learning as an academic exercise to language skills as a practical tool is possible. If we want to develop medical staff in emergency services who are capable of surviving in a foreign language environment then trainers have to ensure that the necessary skills are provided. The project is due for completion by spring 2016.

www.vocal-medical.eu

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